



United States Environmental Protection Agency

Region V

77 West Jackson Boulevard

Chicago, Illinois 60604

Facsimile Cover Sheet

Telephone Number

312-886-4071

To: Cori Saltzman

Office phone:

Machine No:

301-504-0907

From:

M. J. Clark

Office phone:

312-886-1918

Mail code:

Date:

Number of pages,
including cover:☐ Original will not follow this transmission, unless requested☐ Original will follow by ☐ U.S. Mail or ☐ Overnight Delivery

Message:

RE: Window Screens

I would suggest also
drawing the issue of with
Frank Kover of EPA. There is
possible authority under
TSCA.

Signature:

M. J. Clark 20

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5****DATE:** October 31, 1996**SUBJECT:** Chemical Release from Window Screening Material**FROM:** J. Milton Clark, Ph.D. 312-886-1918
Senior Health and Science Advisor**TO:** David Price
Team Manager
Indoor Environment DivisionFrank Kover, Chief
Chemical Testing and Information Branch

I have had an opportunity to review the enclosed information provided by the Michigan Department of Public Health. There is strong evidence that the coated fiber glass screens produced by Phifer Wire Company emit a variety of irritating compounds, including methyl ethyl ketone. As many millions of these screens are sold each year, literally millions of persons may be exposed. Respiratory irritation and allergic responses have occurred from these emissions. However, young children and infants, may be experiencing symptoms which have not been associated with these screens.

The issue should be a top priority for evaluation and EPA actions beyond voluntary recall may be appropriate. We would appreciate if the Indoor Environment Division and the Office of Pollution Prevention and Toxics would evaluate this problem.

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1-20-97

TO: Dr. MILTON CLARK-EPA

FROM: Lisa Kelley


phone# 1-810-391-6227 fax#1-810-391-4434

I am writing to you in the hope that you will view a particular consumer problem to be as important as I do. I'm writing about indoor air pollution that could occur as a result of V.O.C. off gassing from defective window screens. I am also concerned about the health effects of long term and low dose exposure to the chemicals.

I had noticed an odd "hot" odor (especially in sunny rooms) and the development of various health problems shortly after we moved into this home. The problems persisted for some time before I heard that some neighbors experienced similar problems and had traced the source to the window screens! Most of the homes in our subdivision were built around the same time. Many of the homes, like ours, have some casement windows that place the screens on the inside of the home. As we did, many others left their screens up all year. After I learned people had been getting their defective screens replaced, I had ours replaced. My first set of replacement screens had the same odd odor. Philfer has replaced my original screens 4 times, with fiberglass and coated aluminum screens. I now have uncoated stainless steel screens. People are still requesting that their screens be replaced. Complaints, claims, and lawsuits continue to be filed.

In my case the problems included headaches, arthritis, inflammation, increase in sinus problems, tingling from hands and feet, cysts, mouth sores, dermatitis, elevated titers for Lyme, CMV, chlamydia, fatigue, abnormal immunoglobulin tests, and positive ANA tests. The ANA gradually went down and subsequently became negative after the last set of coated screens were removed from my home. My 12 year old daughter had repeated stomach aches that did decrease after the final coated screen removal, but has continued to have various joint problems, low blood sugar readings, rapid heartbeat, abnormal immunoglobulin tests, and has been hospitalized twice in the last year for infection with high fever and dehydration. My 9 year old son had repeated ear infections that wouldn't clear up with antibiotics but did finally resolve after the final coated screen removal. He has continued to have some occasional ear problems. My husband was having repeated problems with achiness, nausea and irritated bloodshot eyes. He continues to have some problems at this time.

Detroit and Phoenix area news stations aired stories about this problem in April/May of 1993. The CPSC did create a file on the Philfer Wire Products screens. The file was closed after Philfer explained a program to "Locate and Replace" the defective material. While Philfer, to my knowledge, has often agreed to replace screens for consumers who contact them with concerns, I am not sure what effort has been put forth to locate other defective material. So, of course, I worry about homes where the product is still in place and could be causing problems. How will families be made aware of this problem? I am also concerned about those who may not be able to associate their health problems or odd odors with their screens.



01/31/1997 18:01

8103910062

MARY & JOE GOLARZ

PAGE 01

Attention :- John Heuer
FAX # 517-325-9775

From : MARY GOLARZ
FAX 810-391-0062
Phone 810-391-1675

Total Pages including cover : 4

Hi John,

Jan 31, 1997

Mr. John Chavala told me this
"Turner/CAS" test was done because of
questions regarding "leaching". He had
apparently placed screening material
in a glass jar + placed it in the
direct sunlight. Please note how the
material had condensed. Maybe this
will interest the EPA!!
To my knowledge, the MS C/PSC does
not have this report.

Thanks,

Sincerely
Mary Golarz

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01/31/1997 18:01

5103918862

MARY&JOE GOLARZ

PAGE 92



August 18, 1993

Work Order No: T93-80781

John Edwards
Suntrol, Inc.
Suite 6
3767 E. Broadway
Phoenix, Arizona 85040

Re: Screen Samples

Dear John:

Attached are the results of the samples submitted to our laboratory on August 3, 1993. For your reference, these analyses have been assigned our work order number T93-80781.

All analyses were performed consistent with our laboratory's quality assurance program. All results are intended to be considered in their entirety, and Turner/CAS is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

Please call if you have any questions.

Respectfully submitted,

Turner/CAS Laboratories, Inc.

A handwritten signature in black ink, appearing to read "W. W. Turner", is written over a horizontal line.

W. W. Turner
Laboratory Director

WWT/cas

Page 1 of 2

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01/31/1997 10:01

0103910052

MARY&JOE GOLARZ

PAGE 03

TURNER/CAS LABORATORIES, INC.

Client: Buntrol, Inc.
Project: Screen Samples
Sample Matrix: Screen

Date Received: 02/02/98
Work Order No.: TV4-29731

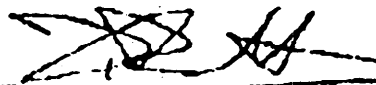
CASE NARRATIVE SUMMARY

Two samples of screen were received for evaluation. All analyses were performed on equipment at The University of Arizona. One sample was sealed in a vial with a septum. This sample was heated to 80°C and the vapor in the vial was analyzed by headspace GC/MS. The peak areas of the resulting peaks were too small to obtain certain identification, but the following compounds are the most likely matches from comparison to NBS standards.

1-butanol, 3-methyl, acetate
diethyl phthalate
diethyl phthalate
diethyl phthalate

The second sample was in a large jar. In this jar, material had condensed on the bottom in small globules. This material was granular in nature. It was removed and an FTIR spectrum of the material was obtained. This spectra shows the material to contain primarily ester functionalities.

Approved by



Date

6/19/93

Page 2 of 2

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MEMORANDUM
DEPARTMENT OF COMMUNITY HEALTH
LANSING, MICHIGAN 48909

DATE: December 3, 1996

TO: Milton Clark, M.D.
US EPA, Region V

FROM: *JLH* John L. Hesse, Chief
Site Assessment Section
Environmental Epidemiology Section

SUBJECT: Window Screens

Attached for your information is a partial MSDS for current Phifer Wire screen products. Mary Golarz provided this recently.

Have you been able to do anything in follow-up to the suggestion from Bill Adams, ATSDR, that a workgroup of federal agency representatives be established to review the issue of possible health problems caused by off-gassing from vinyl coated window screen material? I believe he felt that Carol Rubin of CDC and someone from CPSC should be involved in addition to US EPA. I don't recall what kind of a role, if any, he suggested for ATSDR. I would be pleased to assist the work group in any way that I can.

I imagine that you have become involved in the Mississippi methyl parathion misuse case. It sounds to be another very serious situation. When these things come up, I know that other issues of less pressing significance sometimes suffer.

Please keep me informed of progress on the toxic screen issue, and let me know how you might want me to assist.

cc: Dr. Sidhu

RECEIVED
DEC 03 1996
REMEDIAL & ENFORCEMENT
RESPONSE BRANCH
26

Attention : John Hease

Fax # 517-335-9775

From : Mary Galaz

Fax # 810-391-0062

Message : Hi John,

I received their 2 page
MSDS form from Clarkston Glass Co
yesterday, Nov. 4, 1996.

Please note the 2nd page.

The CPSC file has only the 1st page.
Also note the ~~steps~~ on hazardous decomp. product.
Free-free to call!

Phone 810-391-1675

Total pages - 3

INC. COVER

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FROM

11.04.1996 17:28

P. 1

ID: 2057503033

NOV 04 '96

15:30 No.002 P.02

MANUFACTURER: Philtec Wire Products, Inc.
ADDRESS: P. O. Box 1700

4400 Kauloosa Ave.

PHONE: Tuscaloosa, AL 35403

EMERGENCY NO. 205-365-2120

TELEX 261326 PHIF UR

MSDS NO. 252-PCS-002

Date 08/28/99 REV. A

Prepared by Anthony Gambel

SECTION I. MATERIAL IDENTIFICATION

CHEMICAL NAME: PVC Coated Fiberglass Yarn
AND SYNONYMS: PVC Coated Fiberglass Insect
screeningTRADE NAME: Phiferglass Yarn
AND SYNONYMS: Phiferglass Insect Screening
Phiferglass Sunscreen
ShearWaves 2000

CHEMICAL FAMILY: Mixture

FORMULA: $(C_2H_3Cl)_n$

SECTION II. INGREDIENTS AND HAZARDS

| | % | HAZARD DATA | % | HAZARD DATA |
|--|---|-------------|---|-------------|
| TLV's and PEL's have not been established for this finished product. Use is in final form as coated yarn and woven non-metallic screening. | | | | Customer |

SECTION III. PHYSICAL DATA

| | | | |
|-------------------------------|------|---|--------------|
| Boiling point at 1 atm. deg F | NA | Specific gravity (H ₂ O = 1) | 1.12 |
| Vapor pressure at (mm Hg) | NA | Evap. Rate (...) | NA |
| Vapor density (Air = 1) | NA | Volatiles, % by Volume | NA |
| Water solubility | None | Molecular weight | NA (mixture) |

Appearance & Odor: Woven vinyl coated fabric, 8 to 10 cells. Odor of new vinyl.

SECTION IV. FIRE AND EXPLOSION DATA

| | LOWER | UPPER |
|----------------------------|-------|-------|
| Flash Point and Method | NA | NA |
| Autoignition Temp. | NA | NA |
| Flammability Limits in Air | NA | NA |

Extinguishing media: Water, foam, dry-chemical.

Special fire fighting procedures: For enclosed areas, use respirator or air mask

Unusual fire and explosion hazards: None known. Material will not burn in the absence of an independent flame source. Meets NFPA 101, Class A rating.

SECTION V. HEALTH HAZARD INFORMATION

TLV Not established

Effects of overexposure: Occasional skin irritation and upper respiratory tract irritation. Symptoms have been reported during manufacture of product but have not been detected and are not expected during end use of product. No toxicity is associated with irritation.

FIRST AID:

Eye contact:

Flush eye with flowing water (eye fountain) for at least 15 minutes.

Skin contact:

Frequent rinsing of skin surfaces with water to remove accumulated fibers will minimize irritation.

Inhalation:

Vapors should not be hazardous.

Ingestion:

Consult physician.

Attn: Mary L. ...

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**PHIFER WIRE PRODUCTS, INC.**

P. O. BOX 1700 • TUSCALOOSA, ALABAMA 35403-1700 U.S.A.

■ CHARLES E. MORGAN
Executive Vice President and Corporate Counsel

February 5, 1997

Ms. Judith Hayes
Compliance Officer
U.S. Consumer Product Safety Commission
4330 East West Highway, Room 613
Bethesda, MD 20814-4408

Re: CPSC CA930075
Phifer Wire Products, Inc.
Polymer (PVC) Coated Fiberglass Screening

Dear Ms. Hayes:

Along with several other employees here at Phifer Wire, I have been looking through our files to find the information with which to answer your questions regarding our screen replacement program.

The replacement program began in an informal way in 1989, as soon as we realized that some of the screening we had produced after January 1988 was not performing as it should. Phifer Wire had little experience in dealing with product failures before that time. The program evolved through the years as necessary to respond to the problem.

During the first few years, there was no formal written replacement program. If a consumer or apartment manager reported discolored screening, we would ask our distributor, or the dealer or contractor who had installed the screening, to replace it without charging the homeowner. We would then give our distributor a credit equal to the total cost (materials and labor) of rescreening the job. This became complicated as the number of claims increased with several levels of distribution involved (manufacturer-distributor-dealer-contractor), so we began directly paying the dealer or contractor who did the screen replacement.

Some of our basic insect screening was (and still is) sold without written warranties of any kind. Our SunScreen® solar screening has a five-year written warranty, but it covers material only and not the labor costs related to the replacement. Nevertheless, since we determined that some of the 1988-89 material had a latent defect that could not be detected at the time of installation, we decided to make our customers and their customers completely whole by reimbursing the full cost of the labor and materials needed to replace the discolored screening.

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Ms. Judith Hayes
February 5, 1997
Page Two

The earliest written record I found of our replacement program is the enclosed document (that I have marked "EXHIBIT A") titled "DEFECTIVE SUNSCREEN REPLACEMENT PROGRAM." That program outline was given to our distributors in the southwest (where most SunScreen is sold) beginning in 1992 or 1993. Along with those guidelines, distributors were given the enclosed "DEFECTIVE SUNSCREEN REPLACEMENT CLAIM" form that I have marked "EXHIBIT B."

After the screen problem and the replacement program were widely publicized via television in 1993, we distributed "CONSUMER INSPECTION REQUEST CARDS" for our customers to give to consumers. Please see enclosed "EXHIBIT C."

Although our screen replacement program was not pre-organized as well as it might have been if we had had previous experience, we were still able to identify and replace discolored screening for thousands of consumers before the expiration of the normal useful life (about five years) of the product. Between 1989 and the end of 1996, Phifer Wire spent well over two million dollars on screen replacements.

Phifer Wire has received no product liability claims of any kind since our last supplemental response. If you need additional information, please let me know.

Sincerely yours,

PHIFER WIRE PRODUCTS, INC.

Charles Morgan
Charles Morgan

CM:jh

Enclosures

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EXHIBIT A

**DEFECTIVE SUNSCREEN REPLACEMENT
PROGRAM**

Phifer Wire Products, Inc. will pay SunScreen Dealers \$2.36/square foot for the replacement of defective SunScreen material, in accordance with the defective sample provided by Phifer Wire Products. For the Dealer to be reimbursed the following procedures must be taken:

1. Dealer must fill out the Defective SunScreen Replacement Claim Form (Provided by Phifer Wire)
2. The Dealer is to mail the completed and signed Defective SunScreen Replacement Form to:

Phifer Western
14408 East Nelson Avenue
City of Industry, CA 91744

3. Phifer will inspect defective SunScreen material at the job sites on the second and fourth Monday and Tuesday of each month.
4. After inspection, Phifer will approve or deny the replacement claim. If approved, the dealer will be given the approved replacement form and can proceed with the replacement of the defective SunScreen.
5. After completion of the installation of replacement material, dealer will attach the invoice to the warranty claim form and mail it back to Phifer Western at the above address. The invoice must reflect total square footage, color, number of screens and sizes used to replace defective material.
6. Once Phifer receives this information, Phifer will do the post inspection to determine that the material has been replaced.
7. After approved post inspection, Phifer will send the warranty claim form with attached invoice to Phifer Wire Products Corporate Headquarters for payment.

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EXHIBIT B

DATE OF CLAIM: _____

DEFECTIVE SUNSCREEN REPLACEMENT CLAIM

1. Dealer's Name: _____ Fed. ID # _____
Contact: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____

2. Customer's Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____

I, the undersigned, do hereby affirm that the material in the above mentioned application is defective according to the sample provided by Phifer Wire Products, Inc. This material was originally installed by: _____ Date: _____

Signed_____
Date

4. PRE-INSPECTED BY: _____ DATE: _____

5. Total Square Footage and Color of Material Replaced: _____

6. POST-INSPECTED BY: _____ DATE: _____

COMMENTS: _____

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NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT NO. 22 TUSCALOOSA, ALABAMA

POSTAGE WILL BE PAID BY ADDRESSEE

PHIFER WIRE PRODUCTS INC
ATTN: ALAN GRAY
P O BOX 1700
TUSCALOOSA AL 35403-1700



CONSUMER INSPECTION REQUEST CARD

1. Who installed your fiberglass screens? _____
2. When were your screens installed? _____
3. If your screen was in place when you purchased your home and you do not know the answers to questions 1 & 2, when was your home built and by whom? DATE: _____ BUILDER: _____
4. When did you first realize there might be a problem with your screens? _____
5. What day and hour would be convenient for us to phone you to schedule an appointment to inspect your fiberglass screens? _____
6. Your Name: _____
Address: _____
Phone No.: _____

EXHIBIT C

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FAX COVER SHEET

TO: Judith Hayes

FROM:

Charles Morgan
Phifer Wire Products, Inc.
P. O. Box 1700
Tuscaloosa, AL 35403-1700

FAX NO: 301/504-0359

DATE: Feb. 6, 1997

TELEPHONE: 205/750-4757
or 205/345-2120

TOTAL PAGES: 6

FAX NO: 205/750-3022

25

Attention : Patricia Atkins

Fax # 301-504-0768

TOTAL page = 3

From : Mary Golarz

Fax # 810-391-0062

Phone # 810-391-1675

Dear Mr. Atkins,

Jan 31, 1997

There are 4 areas families I know of that received "METAL" screens as replacement for their original in the year 1996.

The 2 letters are from a family with health effects: William + Melinda DePlauty
5625 Gardner Rd
Metamora 48455 Phone 810-969-0175

The following families gave their permission to also pass their names on to officials of the government

1) Donald + Gail Pygman

6831 Sun Valley Dr Duplt.

Clarkston, MI 48348

Phone 810-391-5141

2) Michael + MaryAnn Kenson

6539 Sun Valley Dr

Clarkston, MI 48348

Phone 810-391-4887

(Received "Metal" screens in 1996)

(Received "metal" screens sometime after the T.V. media coverage in MI + AZ in 1993)

Sincerely,

Mary Golarz
810-391-1675

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11/16/97

To Whom it may concern

October 1993 We purchased a new house in Metamora Michigan. After moving in the kids were sick more often than in our other house, Allergies seemed to pop up all of the sudden they seemed more sensitive to everything around them. We are in a very rural environment more so than before. We have had the screens in our home replaced this past summer. The kids seem to be feeling better overall. Hopefully this was the problem or if not all, then some of it. We will be available in the future for more information. This will be our first full summer coming up with the new screens.

Sincerely

Walter H Oetelaar
5625 GARDNER Rd
METAMORA MICH 48455
1-810-969-0175

husband
in Metamora
(page)

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To Whom it may concern:

I have experienced head aches, sleeplessness, loss of concentration, frequent urination and was more irritable when we had the screens. I can't be one hundred percent sure that it is the screens but I am glad that these signs have subsided with our new screens. My son Brandon has had allergies, asthma, and now seems much better. My son Dayne would always wake up in the night and have to sleep with us. My daughter Rachelle would throw tantrums for no reason, she would always have sudden glauco and usually a cold or upper respiratory problems. My husband Bill has sleep apnea and had always seemed stressed but seems better now with our new screens.

Melinda Y DePlacenty
5625 Gardner Rd Metamora 48455
517-969-0175

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*provided
by P. Adkins*

1-20-97

TO: Dr. MILTON CLARK-EPA

FROM: Lisa Kelley

phone# 1-810-391-6227 fax#1-810-391-4434

I am writing to you in the hope that you will view a particular consumer problem to be as important as I do. I'm writing about indoor air pollution that could occur as a result of V.O.C. off gassing from defective window screens. I am also concerned about the health effects of long term and low dose exposure to the chemicals.

I had noticed an odd "hot" odor (especially in sunny rooms) and the development of various health problems shortly after we moved into this home. The problems persisted for some time before I heard that some neighbors experienced similar problems and had traced the source to the window screens! Most of the homes in our subdivision were built around the same time. Many of the homes, like ours, have some casement windows that place the screens on the inside of the home. As we did, many others left their screens up all year. After I learned people had been getting their defective screens replaced, I had ours replaced. My first set of replacement screens had the same odd odor. Phifer has replaced my original screens 4 times, with fiberglass and coated aluminum screens. I now have uncoated stainless steel screens. People are still requesting that their screens be replaced. Complaints, claims, and lawsuits continue to be filed.

In my case the problems included headaches, arthritis, inflammation, increase in sinus problems, tingling from hands and feet, cysts, mouth sores, dermatitis, elevated titers for Lyme, CMV, chlamydia, fatigue, abnormal immunoglobulin tests, and positive ANA tests. The ANA gradually went down and subsequently became negative after the last set of coated screens were removed from my home. My 12 year old daughter had repeated stomach aches that did decrease after the final coated screen removal, but has continued to have various joint problems, low blood sugar readings, rapid heartbeat, abnormal immunoglobulin tests, and has been hospitalized twice in the last year for infection with high fever and dehydration. My 9 year old son had repeated ear infections that wouldn't clear up with antibiotics but did finally resolve after the final coated screen removal. He has continued to have some occasional ear problems. My husband was having repeated problems with achiness, nausea and irritated bloodshot eyes. He continues to have some problems at this time.

Detroit and Phoenix area news stations aired stories about this problem in April/May of 1993. The CPSC did create a file on the Phifer Wire Products screens. The file was closed after Phifer explained a program to "Locate and Replace" the defective material. While Phifer, to my knowledge, has often agreed to replace screens for consumers who contact them with concerns, I am not sure what effort has been put forth to locate other defective material. So, of course, I worry about homes where the product is still in place and could be causing problems. How will families be made aware of this problem? I am also concerned about those who may not be able to associate their health problems or odd odors with their screens.

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JOHN ENGLER, Governor

COMMUNITY PUBLIC HEALTH AGENCY

3423 N. MARTIN L. KING JR. BVLD.
PO BOX 30195
LANSING, MI 48909

January 21, 1997

Ms. Judith Hays
Consumer Product Safety Commission
Room 613
4330 East-West Highway
Bethesda, Maryland 20814

Dear Ms. Hays:

Subject: Vinyl coated window screens

This follows our telephone conversation of January 16, 1997 and earlier discussions and correspondence with Consumer Product Safety Commission staff. We have received health complaints from the following Michigan residents who have used certain kinds of vinyl coated window screens in their homes more recently than 1990. The citizens have complained of having irritation of eyes, nose, and the respiratory tract, as well as other health problems, which they believe were caused by the indoor air contaminants allegedly released by the window screens.

1. Linda Faught
6950 Patrick Court
Clarkston MI 48346
Telephone 810-625-9419
2. Kelley Keffer-Marsh
6351 Paramus
Clarkston MI 48346
Telephone 810-625-9263
3. Robert Freer
P.O. Box 549
Harrisville MI 48740
Telephone 517-724-6241

CPSC
JAN 27 P 2:40
RECEIVED

Besides these, I also list below the names and addresses of the community lead persons who are well informed with this problem.

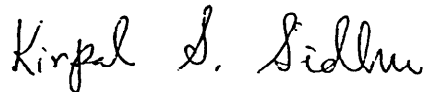
40

Ms. Judith Hays
Page 2
January 21, 1997

1. Mary Golarz
6710 Sun Valley Drive
Clarkston MI 48348
Telephone 810-391-1675
2. Lisa Kelly
6600 Sun Valley Drive
Clarkston MI 48348
Telephone 810-391-6227

I hope CPSC will continue to investigate and study this problem. I sincerely look forward to hearing from you.

Yours sincerely,



Kirpal S. Sidhu, Ph.D., Toxicologist
Environmental Epidemiology Division
Telephone 517-335-8362

cc: J. Hesse
H. Humphrey
M. Golarz
L. Kelly

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PHIFER WIRE PRODUCTS, INC.

P. O. BOX 1700 • TUSCALOOSA, ALABAMA 35403-1700 U.S.A.

■ CHARLES E. MORGAN
Executive Vice President and Corporate Counsel

November 25, 1996

Ms. Judith Hayes
Compliance Officer
U.S. Consumer Product Safety Commission
4330 East West Highway, Room 613
Bethesda, MD 20814-4408

Re: CPSC CA930075
Phifer Wire Products, Inc.
Polymer (PVC) Coated Fiberglass Screening

Dear Ms. Hayes:

As I mentioned to you in our last telephone conversation, Phifer Wire has recently had comprehensive emissions testing and analysis performed by Air Quality Sciences, Inc. on a sample of our current production fiberglass screening. They tested a recently manufactured nine square foot sample of our screening that had never been exposed to direct sunlight - exactly like the sample I sent to you with my October 30, 1996 letter. Enclosed is a complete copy of the Air Quality Sciences report on the results of that testing. The document is titled "INDOOR AIR QUALITY EVALUATION OF NEW VINYL COATED FIBERGLASS WINDOW SCREENING" and is dated November 19, 1996.

The results of the recently completed tests are consistent with the results of previous testing of our products in that they show no emissions of any substances in concentrations that could be considered toxic or potentially harmful to human beings. The enclosed report represents the most comprehensive testing and analysis of our product ever completed. The results of the tests were used to predict air concentrations of the various chemicals identified using models based upon average sized homes with average numbers of windows. The concentrations determined through the testing were compared with guidelines and specifications published by the American Congress of Governmental Industrial Hygienics, permissible exposure limits (PEL) from the Occupational Safety and Health Administration (OSHA), a German government regulation for maximum allowable workplace concentrations (MAK), and specifications from the State of Washington Indoor Air Quality Program. In all cases, emissions of TVOCs, formaldehyde and particles from our product were far below permissible levels set out in the various guidelines, specifications and regulations.

RECEIVED
CPSC COMPLIANCE ADMIN
96 DEC -2 AIO:29

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Ms. Judith Hayes
November 25, 1996
Page Two

We included the comparison with the German government regulations because we sell a lot of this product in Europe, especially in Germany. We included the comparison with the State of Washington specifications because that Indoor Air Quality Program is considered the most progressive, comprehensive and strictest set of guidelines specifying acceptable levels of product emissions from building materials. Our consultant tells me that the program developed in the State of Washington is now being copied by several other states and will likely be copied by the U.S. Environmental Protection Agency as it develops its standards for indoor air quality. For a product to be acceptable for use in any government building in the State of Washington, the product must fall below the TVOC, formaldehyde and particles specifications within five days of exposure. As the enclosed report indicates, the sample of our current production material emitted far less TVOCs, formaldehyde and particles than the Washington specifications within just four hours of exposure and throughout the 96-hour testing period.

Please note that these tests were conducted at higher temperatures than in the previous Air Quality Sciences test - approximately 70° Celsius, which is the equivalent of 158° F. Heating the product to such high temperature will undoubtedly drive off more chemicals than would be emitted under normal household conditions.

I hope the enclosed data will help you in evaluating the safeness of our product. If you ever need additional information, please feel free to contact me at any time.

Sincerely yours,

PHIFER WIRE PRODUCTS, INC.


Charles Morgan

CM:jh

Enclosure

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